

Martin O'Halloran BHA#708
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North American (Goulbourn) LP
2851 John Street, Suite One
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L3R 5R7
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October 10 2019

RE: Subject Property 21 Huntmar Drive, Kanata/Ottawa, K2S0P6, Butternut on Adjacent Property
BHA Report Number: 708-001
Date(s) of Butternut health assessment: September 26, 27, 2019

Dear Mr. Steven Bishop,

This letter is in regard to my assessment of the Butternut trees on your property. Please read this letter carefully as it contains important information about the Endangered Species Act, 2007 (ESA).

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the ESA from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: <http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Environment, Conservation and Parks (MECP) District Manager. Note that the MECP will not accept photocopies. The BHA Report must be submitted at least 30 days prior to registering to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MECP may contact you for an opportunity to examine the trees.

Links:

Endangered Species Act, 2007:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):

http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

Summary of changes related to Butternut:

<http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>

Information Requests:

ESA-SARinquiries@ontario.ca

If MECP chooses to examine the trees, a representative of the MECP will contact you using the information you supplied when you submitted the BHA Report. After the examination has been completed, MECP will notify you if the examination results change whether you are eligible for the regulation.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the [MECP Registry](#) **after** the 30 day period has elapsed.

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MECP office to determine whether you will need to seek a permit.

As a designated Butternut Health Assessor (BHA), I am providing the following Butternut Health Assessor’s Report for the trees located at the above noted property, for which I completed an assessment during the site visit on the above noted date. **It should be noted that MECP’s window for Butternut Health Assessment and audit is May 15 to August 15 and the assessment was conducted outside of that window.** I’m confident that my conclusions are accurate based on robust and conclusive visible evidence of canker, however, it is possible that MECP could request the assessment to be repeated during the BHA window. If there are other Butternut trees at the site that may be affected by the activity and they are not identified in this report, they too must be assessed by a BHA.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

A total of 20 Butternut trees were surveyed beyond the subject property limits to a distance of 50 metres (Butternut regulation zone). Seventeen (17) of the Butternut have been assessed as Category 1, three (3) were assessed as Category 2, and none (0) were assessed as Category 3. Two of the Category 2 trees are situated at a distance of 25 metres from the subject property such that there is no reasonable expectation that they would be killed, harmed, or taken by activities within the subject property. However, one of the Category 2 trees is approximately 3 metres from the subject property boundary. Although this tree will be protected from harm with implementation of a 10m buffer from the tree’s dripline, consultation with MECP is required to

confirm whether an *Endangered Species Act* permit is required. Note that even with the implementation of a 10 metre buffer, proposed works will fall within the 50 metre regulation zone. Please note that additional consultation with MECP may be required should the 10 metre protection buffer be revised.

Please retain this letter and a copy of the BHA Report for your records, along with any other documentation you may receive from the MECP should an examination of the trees occur. If you have any questions, please do not hesitate to contact the undersigned, or, your [local MECP district office](#).

Sincerely,
Martin O'Halloran, BHA #708

Enclosures:

1. Butternut Health Assessor's Report
2. Original data forms
3. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)
4. Figure Illustrating Butternut Locations

Attachment 1: Butternut Health Assessor's Report

Martin O'Halloran BHA#708
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North American (Goulbourn) LP
 2851 John Street, Suite One
 Markham, Ontario
 L3R 5R7
 416 895 1061
sbishop@nadg.com

Property description: 21 Huntmar Drive, Kanata/Ottawa, K2S0P6
 BHA Report Number: 001
 Date(s) of Butternut health assessment: September 26, 27, 2019
 Date BHA Report prepared: October 10, 2019

Map datum used: NAD83 WGS84

Total number of trees assessed in this BHA Report: 20

The assessed trees were numbered on site using white paint and/or a white pen marker. The numbers at the site correspond to the tree numbers used in this report.

This BHA Report includes the following items:

- Table 1: Butternut trees proposed to be killed, harmed, or taken
- Table 2: Summary of Assessment Results
- Table 3: Butternut Health Assessment Tree Analysis
- Figure showing tree locations

Table 1: Butternut trees proposed to be killed, harmed, or taken

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: killed, harmed or taken)	Reason tree is proposed to be killed, harmed or taken:
1	16 428210.641344, 5014968.39592	2	17	n	Retained	Canopy extent and critical root zone will be avoided. Implementation of 10m buffer from dripline will avoid impacts. Site alteration is proposed beyond

¹ The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.

² The rules in regulation under section 23.7 of O. Reg. 242/08 are not applicable to Category 3 trees.

³ dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: killed, harmed or taken)	Reason tree is proposed to be killed, harmed or taken:
						10m of tree. No harm expected to occur but site alteration is proposed within the 25m regulated area; currently a vacant field.
2	16 428201.559434, 5014964.81188	1	4	N	Retained	
3	16 428204.925017, 5014970.76142	1	6	N	Retained	
4	16 428203.675704, 5014963.67286	1	9	N	Retained	
5	16 428214.263934, 5014941.86526	1	5	N	Retained	
6	16 428210.295293, 5014931.05671	1	25	N	Retained	
7	16 428209.754298, 5014929.30104	1	14	N	Retained	
8	16 428199.729156, 5014934.24072	1	31	N	Retained	
9	16 428199.25848, 5014923.46964	1	35	N	Retained	
10	16 428199.285361, 5014912.86421	1	38	N	Retained	
11	16 428178.170024, 5014947.69331	1	21	N	Retained	
12	16 428179.738237, 5014942.05086	1	29	N	Retained	
13	16 428169.913631, 5014940.80724	1	15	N	Retained	
14	16 428162.322458, 5014930.47148	1	26	N	Retained	
15	16 428186.531509, 5014893.61386	1	21	N	Retained	
16	16 428221.547679, 5014886.40446	1	7	N	Retained	
17	16 428235.202427, 5014911.91935	1	12	N	Retained	
18	16 428228.995416, 5014915.66237	2	7	N	Retained	
19	16 428222.117497, 5014912.61609	2	10	N	Retained	
20	16 428172.718654, 5014937.60236	1	13	N	Retained	

Table 2: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	17	<ul style="list-style-type: none"> A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. During the 30 day period that follows your submission of this BHA Report to the MECP District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MECP may contact you for an opportunity to examine the trees. Category 1 trees may be killed, harmed or taken after the 30 day period that follows submission of this BHA Report to the MECP District Manager, unless the results of an MECP examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the <i>Endangered Species Act, 2007</i>”.
Category 2	3	<ul style="list-style-type: none"> A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. During the 30 day period that follows your submission of this BHA Report to the MECP District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MECP may contact you for an opportunity to examine the trees. Activities that may kill, harm or take up to a maximum of ten (10) Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation. Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm
Category 3	0	<ul style="list-style-type: none"> A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”. Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. Visit the MECP website using the link below for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees: http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/MECP_SAR_HOW_DO_GET_PER_EN.html
Cultivated	0	<ul style="list-style-type: none"> An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MECP district office: http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	<ul style="list-style-type: none"> Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

NOTE: This concludes the summary of the BHA Report. A complete BHA Report must include the original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), an electronic copy of the Excel data analysis spreadsheet, and one printed copy of the Excel data analysis spreadsheet.

Attachment 2: Original Data Forms

Surveyor ID or BHA # **0708**

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy) **26 - 09 - 2019**

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact First **MARTIN** Last **OHALLORAN**
 Email **mohalloran@131.com**
 Telephone **(519) 622-3300** Telephone Other () - () - () X **28**

Property Owner (check if same as surveyor)
 First Last
 or Company **NORTH AMERICAN (GOULBOURN) LP**
 Email **sbishop@nadr.com**
 Telephone **(416) 895-1061** Telephone Other () - () - () X

Property Owner's Mailing address Postal Code Prov.
 Address **2851 JOHN STREET SUITE 1** **L3R5R7** **ON**
 City **MARKHAM**

Tree Location (if different from mailing address)
 Address/(911#) **21 HUNTMAR DRIVE**
 Township **KANATA** Lot Con
 City **OTTAWA**

Directions
21 HUNTMAR DRIVE + HAZELDEAN BOULEVARD - NORTHWEST QUADRANT
OF INTERSECTION, BUTTERNUT ARE FOUND ON ADJACENT MUNICIPAL PROPERTY
 Yes No Can Share Location Information with other Butternut Recovery Organizations?
 Yes No Site visits OK? (prior arrangements will always be made for a site visit)

> (Greater than)
< (Less than)

Butternut Trees Tally by Diameter Class
 (Do a dot tally in blank space; write total# in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers	00	10	05	03
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem	00	01	01	00
Dead	00	00	00	00

Historically, do some trees produce seeds? Y N Unknown

Estimated area containing butternut for properties > 1 acre (0.4 hectares): **0.9** Acres Hectares

Overall Property Description (area(s) containing Butternut)

Rolling Upland Bottomland
 Valley Slope Variable
 Tableland Unknown

Vegetation Community/ies

Open Fencerow
 Shrubland Roadside
 DeciduousForest Quarry
 ConiferForest UrbanYard
 MixedForest UrbanPark

Other

Soil Drainage

Well Drained
 Moderately Drained
 Poorly Drained
 Unknown

Soil Texture

Clay Sand
 Clay Loam Variable
 Loam Unknown
 Loamy Sand

Soil Depth

> 1metre
 30 - 99cm
 < 30cm
 Variable
 Unknown

TREES ON MUNICIPAL PROPERTY
CURRENTLY PRODUCE SEED

Please enter matching numerical page link code on forms 1 and 2

Page Link **708001**

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 Peterborough, ON, K9J 2V4
 www.fgca.net

49731

TA8952

Adjacent to 21 HUNTING DRIVE

Butternut Data Collection FORM 2 (2010 Edition) (PLEASE USE BLOCK LETTERS)

Fill when Form 1 indicates canker is well established. The information on Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Shaded fields are mandatory for Butternut Health Assessments

Site Code(A,B,...Z, AA...) **001** Surveyor ID or BHA # **0708**

Date (dd/mm/yyyy) **26-09-2019**

Surveyor Last Name **HALLORAN**

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # **B1** Zone **16** Easting **428211** Northing **5014968**

Crown Class **2** Live Crown % **100** Main Stem Length(m) **2** Below crown **2** Seed Signs **2** #Stems **2** Butternut Origin **2** Male Flowers **2** Female Flowers **2** Planted **2** Seed Set **2** Unknown **2** None **2**

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** Bark Type **S** # Callused Wounds **01**
#Open #Sooty
Root **00** **00**
=<2m **00** **03**
>2m **00** **00**

Metres from badly cankered tree < 40 > 40 None Found
Competing Species
A C E N E G U
F R A P E N N
U L M A M E R

CATEGORY 2 second stem 13cm

Tree # **B2** Zone **16** Easting **428202** Northing **5014965**

Crown Class **2** Live Crown % **100** Main Stem Length(m) **2** Below crown **2** Seed Signs **1** #Stems **1** Butternut Origin **1** Male Flowers **1** Female Flowers **1** Planted **1** Seed Set **1** Unknown **1** None **1**

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** Bark Type **S** # Callused Wounds **01**
#Open #Sooty
Root **00** **00**
=<2m **02** **00**
>2m **00** **00**

Metres from badly cankered tree < 40 > 40 None Found
Competing Species
A C E N E G U
F R A P E N N
U L M A M E R

CATEGORY 1

Tree # **B3** Zone **16** Easting **428205** Northing **5014971**

Crown Class **3** Live Crown % **005** Main Stem Length(m) **02** Below crown **02** Seed Signs **1** #Stems **1** Butternut Origin **1** Male Flowers **1** Female Flowers **1** Planted **1** Seed Set **1** Unknown **1** None **1**

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** Bark Type **S** # Callused Wounds **00**
#Open #Sooty
Root **02** **00**
=<2m **04** **00**
>2m **00** **00**

Metres from badly cankered tree < 40 > 40 None Found
Competing Species
A C E N E G U
F R A P E N N
U L M A M E R

CATEGORY 1, BUCKTHORN AND HONEYSUCKLE ABUNDANT

Tree # **B4** Zone **16** Easting **428204** Northing **5014971**

Crown Class **2** Live Crown % **100** Main Stem Length(m) **02** Below crown **02** Seed Signs **1** #Stems **1** Butternut Origin **1** Male Flowers **1** Female Flowers **1** Planted **1** Seed Set **1** Unknown **1** None **1**

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** Bark Type **S** # Callused Wounds **00**
#Open #Sooty
Root **03** **00**
=<2m **08** **01**
>2m **00** **00**

Metres from badly cankered tree < 40 > 40 None Found
Competing Species
A C E N E G U
F R A P E N N
U L M A M E R

CATEGORY 1

Tree # **B5** Zone **16** Easting **428214** Northing **5014964**

Crown Class **3** Live Crown % **100** Main Stem Length(m) **02** Below crown **02** Seed Signs **1** #Stems **1** Butternut Origin **1** Male Flowers **1** Female Flowers **1** Planted **1** Seed Set **1** Unknown **1** None **1**

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** Bark Type **S** # Callused Wounds **01**
#Open #Sooty
Root **01** **00**
=<2m **04** **00**
>2m **00** **00**

Metres from badly cankered tree < 40 > 40 None Found
Competing Species
U L M A M E R
F R A P E N N
A C E N E G U

CATEGORY 1

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Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

Fill when Form 1 indicates canker is well established. The information on Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Shaded fields are mandatory for Butternut Health Assessments

Site Code(A,B,...Z, AA...) **001**

Surveyor ID or BHA # **0708**

Date (dd/mm/yyyy)

26-09-2019

Surveyor Last Name **OHALLAHAN**

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # **B6** Zone **16** Easting **428210** Northing **5014931**

Crown Class **2** Live Crown % **100** Main Stem Length(m) **03** Below crown **03** Seed **02** Butternut Signs **02** Twig Dieback Branch Dieback Defoliation Discolouration **1** #Stems Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** #Open **02** #Sooty **01**
Bark Type **R** Root **07** **10**
Callused Wounds **00** **01** **07**

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
U L M A M O R
F R A P E N N
V I T R I P A

CATEGORY 1

Tree # **B7** Zone **16** Easting **428210** Northing **5014929**

Crown Class **2** Live Crown % **040** Main Stem Length(m) **03** Below crown **03** Seed **03** Butternut Signs **03** Twig Dieback Branch Dieback Defoliation Discolouration **1** #Stems Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** #Open **03** #Sooty **01**
Bark Type **S** Root **08** **05**
Callused Wounds **00** **02** **03**

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
U L M A M O R
F R A P E N N
V I T R I P A

CATEGORY 1

Tree # **B8** Zone **16** Easting **428200** Northing **5014934**

Crown Class **1** Live Crown % **075** Main Stem Length(m) **03** Below crown **03** Seed **03** Butternut Signs **03** Twig Dieback Branch Dieback Defoliation Discolouration **1** #Stems Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
#Epic-Live **02** #Epic-Dead **00** #Open **05** #Sooty **04**
Bark Type **S** Root **09** **10**
Callused Wounds **00** **02** **07**

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
U L M A M E R
A C E N E G U
F R A P E N N

CATEGORY 1

SEPTEMBER 27

Tree # **B9** Zone **16** Easting **428199** Northing **5014923**

Crown Class **2** Live Crown % **100** Main Stem Length(m) **05** Below crown **05** Seed **05** Butternut Signs **05** Twig Dieback Branch Dieback Defoliation Discolouration **1** #Stems Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** #Open **05** #Sooty **01**
Bark Type **S** Root **08** **01**
Callused Wounds **00** **05** **01**

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
U L M A M O R
A C E N E G U
F R A P E N N

Tree # **B10** Zone **16** Easting **428199** Northing **5014913**

Crown Class **2** Live Crown % **100** Main Stem Length(m) **07** Below crown **07** Seed **07** Butternut Signs **07** Twig Dieback Branch Dieback Defoliation Discolouration **1** #Stems Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
#Epic-Live **00** #Epic-Dead **00** #Open **06** #Sooty **04**
Bark Type **S** Root **14** **06**
Callused Wounds **01** **03** **01**

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
U L M A M E R
A C E N E G U
F R A P E N N

#67 FROM PREVIOUS STUDY-ANDREW BOYD BHA LIKELY (CAT 1)

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TA8952

Butternut Data Collection FORM 2 (2010 Edition)

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Shaded fields are mandatory for Butternut Health Assessments

3

001 Site Code(A,B,...Z, AA...)

0708 Surveyor ID or BHA #

Date (dd/mm/yyyy)

27-09-2019

Surveyor Last Name OHALLORAN

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # 011 Zone 164 Easting 28178 Northing 5014948

Crown Class 2 Live Crown % 095 Main Stem Length(m) 06 Below crown 06
Butternut Signs: Male Flowers, Female Flowers, Seed Set, None
Origin: Natural, Planted, Unknown

Assess below live crown: #Epic-Live 00, #Epic-Dead 00, Bark Type S, #Callused Wounds 00
#Open #Sooty: Root <2m 05 00, >2m 10 03

Metres from badly cankered tree: <40, >40, None Found

Competing Species: RHACATH, ACENEGU, JUGCINE

CAT 1

Tree # 012 Zone 164 Easting 28180 Northing 5014942

Crown Class 2 Live Crown % 100 Main Stem Length(m) 03 Below crown 03
Butternut Signs: Male Flowers, Female Flowers, Seed Set, None
Origin: Natural, Planted, Unknown

Assess below live crown: #Epic-Live 00, #Epic-Dead 00, Bark Type S, #Callused Wounds 01
#Open #Sooty: Root <2m 06 00, >2m 12 09

Metres from badly cankered tree: <40, >40, None Found

Competing Species: RHACATH, ACENEGU, JUGCINE

CAT 1

Tree # 013 Zone 164 Easting 28170 Northing 5014941

Crown Class 3 Live Crown % 100 Main Stem Length(m) 05 Below crown 05
Butternut Signs: Male Flowers, Female Flowers, Seed Set, None
Origin: Natural, Planted, Unknown

Assess below live crown: #Epic-Live 00, #Epic-Dead 00, Bark Type S, #Callused Wounds 00
#Open #Sooty: Root <2m 04 01, >2m 04 04

Metres from badly cankered tree: <40, >40, None Found

Competing Species: CLEVIK, ACENEGU, VITRIPA

CAT 1

B20

Tree # 020 Zone 164 Easting 28173 Northing 5014938

Crown Class 3 Live Crown % 100 Main Stem Length(m) 03 Below crown 03
Butternut Signs: Male Flowers, Female Flowers, Seed Set, None
Origin: Natural, Planted, Unknown

Assess below live crown: #Epic-Live 00, #Epic-Dead 00, Bark Type S, #Callused Wounds 00
#Open #Sooty: Root <2m 03 00, >2m 05 05

Metres from badly cankered tree: <40, >40, None Found

Competing Species: VITRIPA, PARINSE, JUGCINE

CAT 1

Tree # 014 Zone 164 Easting 28162 Northing 5014930

Crown Class 2 Live Crown % 106 Main Stem Length(m) 04 Below crown 04
Butternut Signs: Male Flowers, Female Flowers, Seed Set, None
Origin: Natural, Planted, Unknown

Assess below live crown: #Epic-Live 00, #Epic-Dead 00, Bark Type S, #Callused Wounds 00
#Open #Sooty: Root <2m 05 00, >2m 04 04

Metres from badly cankered tree: <40, >40, None Found

Competing Species: ACENEGU, VITRIPA

CAT 1

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Please return forms to: Forest Gene Conservation Association Suite 233, 266 Charlotte St. Peterborough, ON, K9J 2V4 www.fgca.net

49731



Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

Fill when Form 1 indicates canker is well established. The information on Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Shaded fields are mandatory for Butternut Health Assessments

4) Site Code(A,B,...Z, AA...) Surveyor ID or BHA # Date (dd/mm/yyyy)
 Surveyor Last Name

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # Zone Easting Northing

2) Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs

Twig Dieback Branch Dieback Defoliation Discolouration #Stems DBH(cm)

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
 #Epic-Live #Epic-Dead Bark Type # Callused Wounds
 #Open #Sooty Root =<2m >2m

Metres from badly cankered tree < 40 > 40 None Found

Competing Species

CAT 1

Tree # Zone Easting Northing

3) Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs

Twig Dieback Branch Dieback Defoliation Discolouration #Stems DBH(cm)

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
 #Epic-Live #Epic-Dead Bark Type # Callused Wounds
 #Open #Sooty Root =<2m >2m

Metres from badly cankered tree < 40 > 40 None Found

Competing Species

CAT 1

Tree # Zone Easting Northing

3) Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs

Twig Dieback Branch Dieback Defoliation Discolouration #Stems DBH(cm)

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
 #Epic-Live #Epic-Dead Bark Type # Callused Wounds
 #Open #Sooty Root =<2m >2m

Metres from badly cankered tree < 40 > 40 None Found

Competing Species

CAT 1

Tree # Zone Easting Northing

3) Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs

Twig Dieback Branch Dieback Defoliation Discolouration #Stems DBH(cm)

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
 #Epic-Live #Epic-Dead Bark Type # Callused Wounds
 #Open #Sooty Root =<2m >2m

Metres from badly cankered tree < 40 > 40 None Found

Competing Species

LARGE WOUND CALLED CAT 2

Tree # Zone Easting Northing

3) Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs

Twig Dieback Branch Dieback Defoliation Discolouration #Stems DBH(cm)

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
 #Epic-Live #Epic-Dead Bark Type # Callused Wounds
 #Open #Sooty Root =<2m >2m

Metres from badly cankered tree < 40 > 40 None Found

Competing Species

CAT 2

Please enter matching page link code on forms 1 and 2

Page Link

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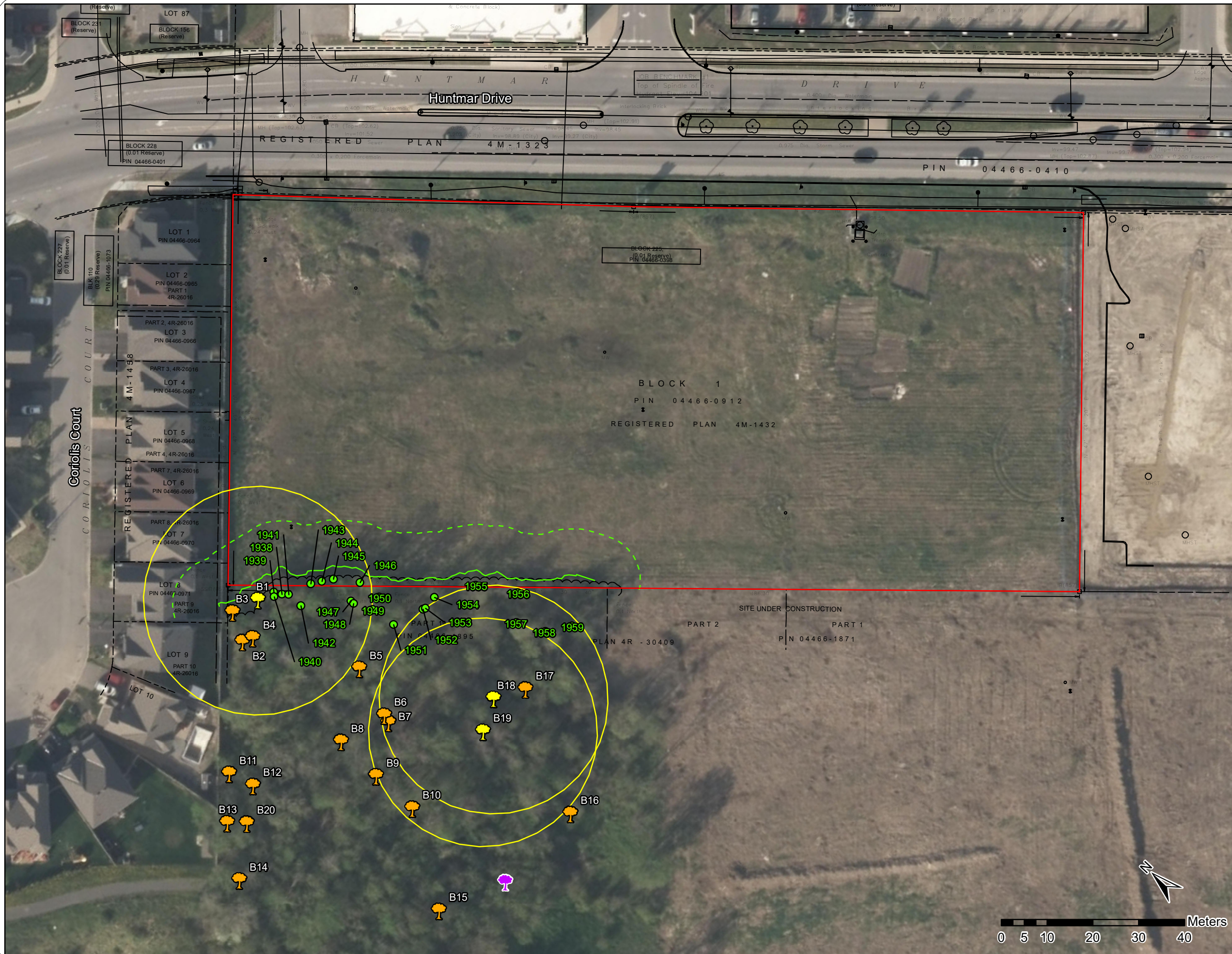
Attachment 3: Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)

BHA Tree Analysis (version: December 2013)









This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	1	Assessment Date(s)	September 26, 27, 2019				Total # Butternut Trees in BHA Report	20												
BHA ID #	708	BHA Name	Martin O'Halloran																	
Landowner / Client Name		North American (Goulbourn) LP																		
Property Location		Adjacent (west) to 21 Huntmar Drive (on municipal property)																		
input field data										automatic calculations from field data						Categories:				
Tree #	Live Crown %	Tree dbh (cm)	# bole cankers				# root flare (RF) cankers		Y or N <40 m from cankered tree?	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	LC% >= 50 & BC% = 0	LC% >70 & BRC% <20	LC% >70 & BC% <20	Preliminary tree call	FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			sooty (S) (will be assigned 2.5 cm per canker)		open (O) (will be assigned 5 cm per canker)		RF S	RF O												
			S <2 m	S >2 m	O <2 m	O >2 m														
1	100	17	3	0	0	0	0	0	y	53.38	7.5	0.0	14.1	0.0	7.0	1	2	2	2	2
2	100	4	0	0	2	0	0	0	y	12.56	10.0	0.0	79.6	0.0	39.8	1	1	1	1	1
3	5	6	0	0	4	0	0	2	y	18.84	20.0	10.0	106.2	53.1	79.6	1	1	1	1	1
4	100	9	1	0	8	6	0	3	y	28.26	72.5	15.0	256.5	53.1	154.8	1	1	1	1	1
5	100	5	0	0	4	0	0	1	y	15.7	20.0	5.0	127.4	31.8	79.6	1	1	1	1	1
6	100	25	10	7	7	1	1	2	y	78.5	82.5	12.5	105.1	15.9	60.5	1	1	1	1	1
7	40	14	5	3	8	2	1	3	y	43.96	70.0	17.5	159.2	39.8	99.5	1	1	1	1	1
8	75	31	10	7	9	2	4	5	y	97.34	97.5	35.0	100.2	36.0	68.1	1	1	1	1	1
9	100	35	1	1	8	5	1	5	y	109.9	70.0	27.5	63.7	25.0	44.4	1	1	1	1	1
10	100	38	6	1	14	3	4	6	y	119.3	102.5	40.0	85.9	33.5	59.7	1	1	1	1	1
11	95	21	1	3	10	10	0	5	y	65.94	110.0	25.0	166.8	37.9	102.4	1	1	1	1	1
12	100	29	9	4	5	12	0	6	y	91.06	117.5	30.0	129.0	32.9	81.0	1	1	1	1	1
13	100	15	4	4	4	0	1	4	y	47.1	40.0	22.5	84.9	47.8	66.3	1	1	1	1	1
14	100	26	4	1	4	2	0	5	y	81.64	42.5	25.0	52.1	30.6	41.3	1	1	1	1	1
15	100	21	2	0	13	6	2	3	y	65.94	100.0	20.0	151.7	30.3	91.0	1	1	1	1	1
16	100	7	0	0	5	2	1	1	y	21.98	35.0	7.5	159.2	34.1	96.7	1	1	1	1	1
17	100	12	2	0	3	0	2	0	y	37.68	20.0	5.0	53.1	13.3	33.2	1	1	1	1	1
18	100	7	1	0	0	0	0	0	y	21.98	2.5	0.0	11.4	0.0	5.7	1	2	2	2	2
19	100	10	2	0	1	0	0	0	y	31.4	10.0	0.0	31.8	0.0	15.9	1	2	1	2	2
20	100	13	5	0	5	0	0	3	y	40.82	37.5	15.0	91.9	36.7	64.3	1	1	1	1	1

Attachment 4: Figure Illustrating Butternut Locations



LEGEND

-  Property Boundary
-  Surveyed Tree
-  Butternut (*Juglans cinerea*) - Category 1
-  Butternut (*Juglans cinerea*) - Category 2
-  25m Regulation Limit from Category 2 Butternut
-  Chinquapin Oak (*Quercus muehlenbergii*)
-  Woodland Dripline
-  10m Buffer from Woodland Dripline

Huntmar Drive



Project	TA8952	Figure	
Date	October 2019	Prepared By:	KC
Scale	1:800	Verified By:	MJO